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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

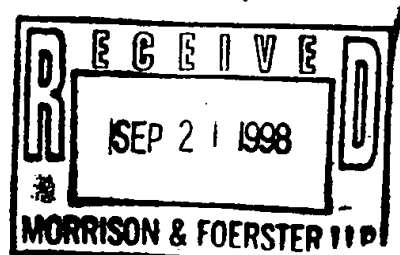
In the reissue application of:

Ann MONOSOV et al.

Patent No.: 5,491,284

Issue Date: February 13, 1996

For: NUDE MOUSE MODEL FOR
NEOPLASTIC DISEASE



**REISSUE APPLICATION DECLARATION AND POWER OF ATTORNEY
BY INVENTOR**

Box 7
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe I am first and joint inventor of the subject matter that is described and claimed in letters patent number 5,491,284, granted on February 13, 1996, and in the foregoing specification, and for which invention I solicit a reissue patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. § 1.56(a) and (b).

- ☐ In compliance with this duty, there is attached an information disclosure statement in accordance with 37 C.F.R. § 1.98

I hereby claim foreign priority benefits under 35 U.S.C. § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

EARLIEST FOREIGN APPLICATION(S) IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION			
COUNTRY (if PCT indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. § 119
*			<input type="checkbox"/> YES <input type="checkbox"/> NO

ALL FOREIGN APPLICATION(S) IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION			
COUNTRY (if PCT indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. § 119
*			<input type="checkbox"/> YES <input type="checkbox"/> NO

STATEMENT OF INOPERATIVENESS OR INVALIDITY OR INVALIDITY OF ORIGINAL PATENT

That I believe the original patent to be

- ☒ partly
☐ wholly

inoperative or invalid because of error without any deceptive intent on the part of the applicant pursuant to 37 C.F.R. § 1.175(a)(6).

The statement below specifies the errors relied upon, and how they arose pursuant to 37 C.F.R. § 1.175(a)(5).

- ☐ why the original patent is believed to be wholly or partly inoperative or invalid (37 C.F.R. § 1.175(a)(1);
- ☐ particularly the defects upon which the claim that such patent is inoperative or invalid "by reason of a defective specification or drawing" is based (37 C.F.R. § 1.175(a)(3); and or

- ☒ distinctly the excess or insufficiency in the claims that make the patent inoperative or invalid "by reason of the patentee claiming more or less than he had a right to claim in the patent." (37 C.F.R. § 1.175(a)(3);
- ☐ Corroborating affidavits or declarations of others accompany this declaration. (37 C.F.R. § 1.175(b).

STATEMENT OF INOPERATIVENESS OR INVALIDITY OF ORIGINAL PATENT

Applicants present this Declaration in support of the above-captioned application for reissue of U.S. Patent No. 5,491,284 to correct certain errors in the prosecution of the original patent which are discussed in this Declaration.

1. U.S. Patent No. 5,491,284 ("284 patent") issued on February 13, 1996, from Application No. 169,735, filed on December 17, 1993; which is a continuation of Application No. 719,814, filed on June 24, 1991, now abandoned; which is a continuation-in-part of Application No. 253,990, filed October 5, 1988, now abandoned.

2. The present claims of the '284 patent are drawn to a nude mouse model for human neoplastic disease and a method of generating a nude mouse model for human neoplastic disease. The composition and method of generating relate to a nude mouse having histologically intact human neoplastic tissue of at least 1mm³ in size transplanted onto an organ of said mouse which corresponds to the human organ from which said tissue is originally obtained; and having sufficient immuno-deficiency to allow said transplanted neoplastic tissue to grow and mimic the progression of the neoplastic disease in the human donor; wherein said human neoplastic tissue is selected from stomach, colon, pancreatic or lung tissue.

3. The attorney of record who filed and prosecuted the applications which subsequently issued as the '284 patent committed an error on his part, apparently without any deceptive intent, by failing to recognize the full breadth and pioneering nature of the present invention and by accepting claims of a narrower scope than that to which Applicant was entitled. These unduly narrowed claims have resulted in the partial inoperativeness or invalidity of the '284 patent by reason of the patentee claiming less than he had a right to claim in the patent. (37 C.F.R. § 1.175(a)(3))

4. These errors in claims 1-21 may be deemed to render the claims as granted wholly or partly invalid and therefore should be corrected.

5. The original claims 1-21 are filed herewith without any modifications or amendments thereto. Also presented are new claims 22-38, which seek to broaden the scope of claims as originally issued. Applicant hereby reserves the right to subsequently amend the claims for the purpose of seeking additional breadth in claim scope as appropriate and necessary.

6. Claims 22, 23, 29, and 30 are drawn to compositions and methods of generating a nude rodent model and specifically in claims 23 and 30, wherein said rodent is a rat. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

7. Claims 24-26 and 31-33 are drawn to compositions and methods of generating an immunodeficient rodent model and specifically in claims 25 and 30, wherein said rodent is a rat and specifically in claims 26 and 33, wherein said rodent is a mouse. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

8. Claims 27 and 34 are drawn to compositions and methods of generating an immunodeficient rodent model and specifically wherein said rodent is a severe combined immunodeficient (SCID) mouse. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62 and in view of the art at the time of the original filing of the '990 application which recognized that SCID mice were immunodeficient due to a lack of mature T-cells.

9. Claims 28 and 35 are drawn to compositions and methods of generating an immunodeficient non-human mammal model. The original specification provides basis for these claims at column 4, lines 9-11, and in view of the disclosure at column 2, line 66 to column 3, line 62.

20. Claims 36-38 are drawn to compositions of immunodeficient models, wherein is deleted the size limitation of 1 mm³ relating to the histologically intact human neoplastic tissue that is transplanted onto an organ of said immunodeficient models. This size limitation was included at the close of prosecution in the '735 application, without an apparent basis of rejection to which the limitation would have been addressed.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith

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☐ Attached as part of this declaration and power of attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative.

all of Morrison & Foerster LLP, 2000 Pennsylvania Avenue, N.W., Washington, D.C. 20006-1888, telephone (202) 887-1500, to prosecute this application and transact all matters in the United States Patent and Trademark Office connected therewith.

Please direct all written communications relative to this application to:

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Please direct all telephone communications to Thomas D. Mays at (202) 887-8761.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

09/15/98
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